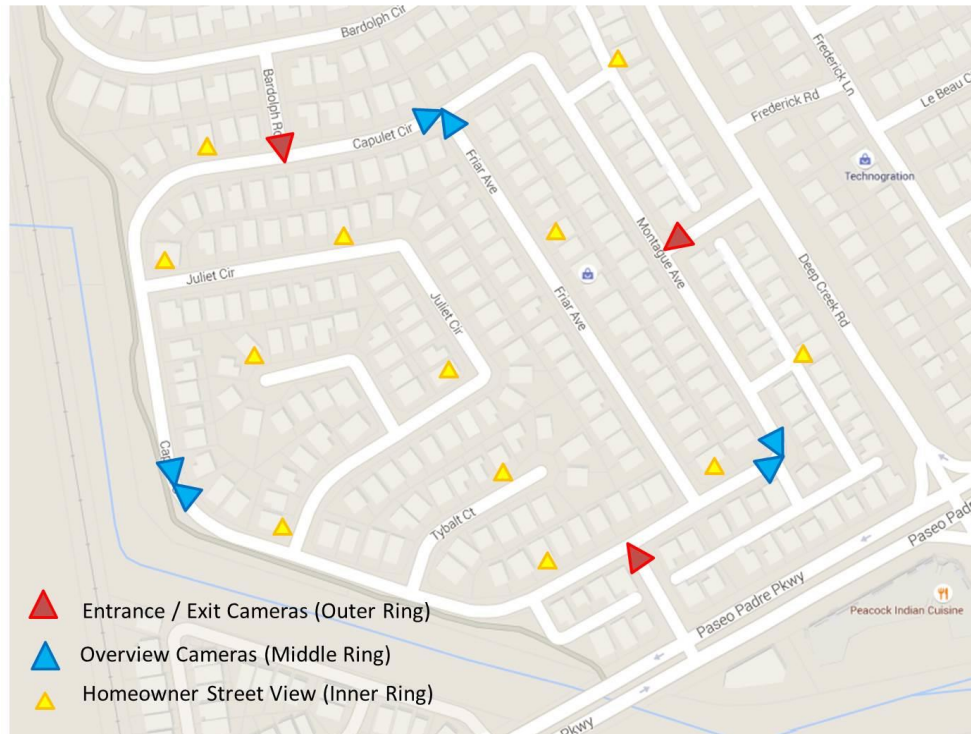


Community Surveillance Camera Guide

When looking to design a community video surveillance system, you should look at it from a concept of rings. Typically there are three rings, the outer ring, the middle ring and the inner ring.

EXAMPLE COMMUNITY CAMERA PLACEMENTS



The Outer Ring:

The first priority is to establish an outer ring. This allows you to identify all, or at least the most common, entrance and exit points of the community.

Once these have been established you then need to try and find a place along these routes where you can try to establish the following conditions:

- Preferably an area where the road narrows to one lane. This allows you to focus one camera on incoming and outgoing vehicles more effectively. Having multiple lanes will make getting the best images more problematic.
- Preferably an area where the traffic slows down. An actual stop sign or speed bumps would be ideal. Video surveillance cameras can obtain much better footage of stationary or slow moving vehicles.
- An area where a video surveillance camera can be mounted on private property. Think outside the box here. We have seen communities in Fremont work together to purchase and install a camera post in a residents yard that had the best view of an entrance/exit point.

Once you have established this, your ultimate goal will be to have a video surveillance camera that can see the front of the vehicle as it passes by. You are looking for something with enough zoom and clarity to ultimately identify the person driving the car. The second part will be to have a video camera that can see the rear of the vehicle either coming or going, with the goal of identifying the license plate. This is where it gets tricky and expensive.

Most moderate to high quality video surveillance cameras can identify a vehicle license plate during daylight. Nighttime can be problematic. Typically one of two things happen, either the vehicle's headlights or taillights are too bright and wash out a clear view of the license plate. Or the IR lighting in the video camera reflects off the special coating on the license plate, causing a blooming effect and making the license plate unreadable.

Typically, the only way to identify a license plate both day and night is by utilizing a video surveillance camera designed to do this. These cameras are typically called LPR (License Plate Recognition) or LPC (License Plate Capture). LPR cameras have the ability to not only provide clear video or a still picture of the license plate, but built in software that can actually read the letters and numbers of the license plate. LPC cameras will only take clear pictures or video of the license plate.

Due to the design of LPR and LPC cameras, though they will obtain a very clear view of the license plate at night, typically the rest of the image will be very dark. This means obtaining a good description of the actual vehicle is very unlikely. This is why these cameras are typically used in conjunction with a normal video surveillance camera.

When selecting an LPR or LPC camera, pay close attention to the specifications. Specifically note the maximum distance the camera can capture a license plate and the maximum speed at which the vehicle can be traveling. Also of concern will be the maximum angle the camera can be mounted from the capture point of the vehicle license plate. Typically the "cheaper" cameras are limited in these areas and can't be applied in a residential neighborhood.

Example of standard IP Camera



Example of License Plate Capture Camera



The Middle Ring:

Once you have your entrance and exit cameras set up, then you can move to the next ring, which provides your awareness. These cameras should be mounted high and are meant to provide an overview of the area. They show where a vehicle of interest traveled within your community.

These cameras can be extremely beneficial when it comes to prosecution. We have seen some communities that have had great entrance/exit cameras, and have provided police with video of the vehicle that did not belong in the area just at the same time a house was burglarized. Unfortunately a lack of overview cameras and residential cameras at the victim residence meant that prosecutors had a very hard time proving to a jury that the car and its occupants committed the crime.

The Inner Ring:

The inner ring is made up of the “street view” cameras from your individual home video surveillance systems. By mounting a single camera on your home towards the street, a community with several video surveillance systems can retrace the route of a vehicle in question by combining their video. This provides even better evidence. These cameras have helped many neighbors who did not have video surveillance, identify suspects and suspect vehicles to the police.